

Faculty Profile

Brief Profile (Few Paragraphs)



Personal Information

- **Name:** Dr. Bhagya R
- **Designation:** Associate Professor
- **Department:** Electronics & Telecommunication Engineering
- **Email:** bhagyar@rvce.edu.in
- **Phone:** [Office Phone]

Google Scholar / ResearchGate / LinkedIn: [Link if applicable]/ **ORCID:** [Link]

- (i) **Google Scholar:** <https://scholar.google.com/citations?user=do-EfV0AAAAJ&hl=en>
- (ii) <https://www.scopus.com/authid/detail.uri?authorId=57200210743> – Scopus Index
- (iii) <https://orcid.org/0000-0003-3095-0712> - Orchid account
- (iv) **WoS:** Web of Science Researcher ID: O-6380-2016
- (v) https://www.academia.edu/mentions?from_navbar=true&trigger=nav
- (vi) <https://www.linkedin.com/in/bhagya-r-577838124/> OR (43) Bhagya R | LinkedIn

Domain of Expertise – Wireless Communication & Networking

MIMO-OFDM, Networking, Wireless & Wired communication, Antennas, Wireless Sensor networks, V2X communication, EV, IoT, Embedded systems, 5G, 6G, Image processing, Multimedia Communication.

Research Focus

- **Primary Area:** Renewable Energy Systems, AI/ML, IoT, Wireless Communication, EV, Agriculture
- **Allied Areas:**
 - Autonomous Vehicles, Smart Grids, V2X communication
 - WSN, IoT in communication, IoT & sensors in Agriculture

Academic Qualifications

- **Ph.D.:** Electronics, Kuvempu University, Shimoga- Cognitive center, RVCE, 2017 - Development of OFDM based MIMO techniques using QPSK and MQAM modulation for high speed network applications.
- **M.Tech:** Electronics, VTU, Belgaum – Sir MVIT, Bangalore, 2006.
- **B.E./B.Tech:** Electronics & Communication Engineering, Bangalore University-SIT College, Tumkur, 1998.

- **Postdoctoral Research:** [University/Lab], [Year] (*if applicable*): NA

Professional Experience

Experience			
S.No	Institute/College/Industry	Job Title	Duration (From- To)
1.	Vasavi Polytechnic College, Vijayanagar, Bangalore.	Lecturer	Jan. 2000 – Oct. 2000
2.	Sir M Visvesvaraya Institute of Technology (Sir M VIT), Bangalore.	Lecturer	5/4/2006 - 6/12/2006
3.	R V College of Engineering (RVCE), Bangalore	Lecturer	29/1/2007 - 31/12/2010
4.	R V College of Engineering (RVCE), Bangalore	Assistant Professor	1/1/2011 - 2/6/2018
5	R V College of Engineering (RVCE), Bangalore	Associate Professor	2/6/2018 – Till date

Publications & Patents

Journal Publications

International Journal Publications:

1. Bhagya.R, Dr. A G Ananth, "Performance of OFDM multiplexing transmission using different digital modulation schemes", International Journal of Advanced Engineering Technology (IJAET), Vol.2, Issue 1, Jan.–March 2011, pp 47-52, E-ISSN0976-3945.
2. Bhgaya.R, Dr. A G Ananth, "Study of transmission characteristics of 2x2 MIMO system for different digital modulation using OFDM and STBC multiplexing techniques and ZF equalizer receiver", International Journal of Computer Science & Engineering Technology (IJCSET), Vol.1, Issue 5, June 2011, pp 210-213, ISSN:2231-0711.
3. Bhgaya.R , Dr. A G Ananth, "Performance of OFDM for different digital modulation schemes", Journal of Engineering Research and Studies (JERS), Vol 2, Issue 3, July-Sept. 2011, pp 128-131, E-ISSN0976-7916.
4. Bhgaya.R , Dr. A G Ananth, "Study of transmission characteristics of 2X2 MIMO system for different modulation techniques using Alamouti STBC coding and ZF, MMSE equalizer receivers", Journal of Engineering Research and Studies (JERS), Vol 2, Issue 4, Oct-Dec. 2011, pp 208-212, E-ISSN0976-7916.

5. R Bhagya, Pramodini D V, A G Ananth, "Transmission characteristics of 4x4 MIMO system with OFDM multiplexing and Markov Chain Monte Carlo Receiver", International Journal of Soft Computing and Engineering (IJSCE), Vol-1, Issue 5, November 2011, pp 233-237, ISSN: 2231-2307. **(Impact factor 0.52)**
6. Shivaraj.S.B, Bhagya.R, "Design and implementation of Adaptive filter for better throughput", International Journal of Engineering Research and applications (IJERA), Vol-2, Issue 3, May-June 2012, pp 2599-2606, ISSN: 2248-9622.
7. R Bhagya, A G Ananth, "Study Of Transmission Characteristics Of 2x2 MIMO System for OFDM Multiplexing and Bpsk Modulation With ZF Equalizer And MMSE Receivers", International Journal of Soft Computing and Engineering (IJSCE), Vol. 2, Issue 3, July 2012, pp 37-40, ISSN: 2231-2307. **(Impact factor 0.52)**
8. Ananda Murthi L S, R. Bhagya," Design and performance analysis of MIMO-OFDM for WLAN standard", International Journal of Electronics and Communication Engineering (IJECE), Vol. 2, Issue 3, July 2013, 77-84 © IASET, ISSN: 2278-9901. **(Impact Factor 3.2029)**
9. Bhagya. R, Dr. A G Ananth," Transmission Characteristics of 2x2 MIMO system Using OSTBC Multiplexing for Different Detector Systems", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE), Vol.3, Issue 7, July 2014, pp 10423- 10431, ISSN (print): 2320-3765, ISSN (online): 2278-8875. **(Impact factor 1.686)**
10. Bhagya. R, Dr. A G Ananth," Performance Studies Of 2x2 MIMO System For Different Modulation and OFDM Multiplexing Techniques Using ML Detector", International Journal of Electronics and Communication Engineering (IJECE), Vol. 3, Issue 5, Sep. 2014, 11-21 © IASET, ISSN (P): 2278-9901, ISSN (E): 2278-991X. **(Impact Factor 3.2029)**
11. Bhagya. R, Dr. A G Ananth," MIMO Performance on Wi-MAX Networks for Different Modulation Schemes", International Journal of Advance Engineering and Research Development (IJAERD), Vol. 1, Issue 8, pp 17-25, August-2014, ISSN (print): 2348-6406, ISSN (online): 2348-4470. **(Impact factor 3.134).**
12. R Bhagya and A.G.Ananth , " Performance of MIMO-OFDM Transmission System on Wireless Networks", International Journal of Innovative Research in Computer Science & Technology (IJIRCST), Vol. 3, Issue 1, pp 31-36, January 2015, ISSN: 2347-5552. **(Impact factor 2.08).**
13. Radhika.S.Kini, Bhagya.R, "Analysis of Phase Encryption scheme for Secure Wireless Communication", International Journal of Emerging Technology in Computer Science and Electronics, Vol. 23, Issue 1, pp.160-165, June 2016, ISSN: 0976-1353.
14. Renuka Prasad C N, Bhagya. R, "An advanced robust iterative filtering technique for data aggregation in WSN" International Journal of Emerging Technology in Computer Science and Electronics, , Vol. 23, Issue 3, pp.38-44, July 2016, ISSN: 0976-1353.
15. Siddharth Sindhur, Dr. Bhagya R," CONTAINERIZED WEB APPLICATION AND DEPLOYMENT ON CLOUD", International Journal of Engineering Technology Research & Management (IJETRM), Vol-4 Issues 07, pp 54-65, July -2020, ISSN: 2456-9348, Impact Factor: 4.520.
16. Soundarya S, Rahul V, Dr. Bhagya R," A comparative analysis on De-Noising ECG Signals Using Discrete and Stationary Wavelet Transforms", International Research Journal of Engineering and Technology (IRJET), Volume: 07 Issue: 06, pp 1-6, June 2020, e-ISSN: 2395-0056, p-ISSN: 2395-0072, Impact Factor value: 7.529.
17. Viresh Badiger, G Sanjeev kumar, Gaurav Hegde, Dr Bhagya R," Implementation of Li-Fi Technology in Vehicle to Vehicle Communication", International Journal of Advances in Engineering and Management (IJAEM), ISSN: 2395-5252, Volume 2, Issue 2, pp 595-602 DOI: 10.35629/5252-45122323, Impact Factor value 7.429, ISO 9001: 2008 Certified Journal, 23-07-2020.
18. Bharathi R, N Parvatham, Anjan K Koundinya , Bhagya R," Low-Cost and Highly Efficient Automated Agribot using IoT", International Journal of Computer Science and Information Security (IJCSIS), Vol. 18, No. 8, pp-19-23, August 2020, ISSN 1947-5500.
19. Rohit Kulkarni, Vibhav Shrivatsa Dinesh, R. Bhagya, R. Bharathi," Difference Expansion Based Reversible Data Hiding Scheme for Watermarking", International Journal of Research in Engineering,

Science and Management (IJRESM), Vol 4, Issue 6, PP 193-195, 20th June 2021, <https://www.ijresm.com> | ISSN (Online): 2581-5792, SJIF Impact Factor: 4.308.

20. Ananya Maiya, Meghana G, Bhagya R, Bharathi R, “Analysis Finger Vein Biometric”, International Research Journal of Engineering and Technology (IRJET), Volume: 08 Issue: 07, pp 670-673, www.irjet.net, e-ISSN: 2395-0056, p-ISSN: 2395-0072, Impact Factor value: 7.529, July 2021.
21. Dr. Bhagya R, Bharathi R, “User Analysis on Digital Adoption Platform”, Global Journal of Research in Engineering & Computer Sciences, India, Volume 01, Issue 01, pp 44-48, Sep-Oct 2021.
22. Dr. S G Shivaprasad Yadav, Meghana, Bharathi R, Dr. Bhagya R, “Digital Predistortion (Dpd) Algorithm For 5g Applications”, International journal of NVEO – Natural Volatiles & Essential Oils, Volume 8, Issue 5, Scimago Journal & Country Rank (SJR), e-ISSN: 2148-9637, pp 888-904, publisher - Aliva Global Research and Development, 2021. **(Q3 journal)**.
23. K S Keerthi, Bhagya R, “Unstructured data storage function for 5G core networks”, IUP journal of Telecommunication, Hyderabad, Volume 13, issue no. 4, November 2021.
24. Dr. Bhagya R, Sushmitha B. Mallika Gowda L, “Design & Development of Multifunctional Robot for Surveillance Applications”, International Journal of Innovative Science and Research Technology, Volume 7, Issue 8, ISSN No:-2456-2165, August 2022, **DOI** : <https://doi.org/10.5281/zenodo.8395061>, **SJIF Impact Factor : 8.223**
25. Bharathi R, Sumathi M S, Bhagya R, Shiva Prasad Yadav S G, Chaitra Kumari, “Automated driver drowsy system using Eye landmark and Gaze estimation”, International journal of Advanced Engineering science **(Q3 journal)**, Volume 54, issue 6, pp 2101-2119. Journal ID : AES-10-08-2022-268
26. Deepti Lakshmi Ravi, Dr. Bhagya R, “Non-Intrusive Load Monitoring (NILM): A Comprehensive Review”, International Journal of Innovative Research in Technology (IJIRT- 166377), July 2024, Volume 11, Issue 2, ISSN: 2349-6002, PP 853 – 858 (UGC care Journal).
27. K Gajalakshmi, Sumitra C V, Bhagya R, C Sunanda, Hemalatha J N, Usha Padma, “Agricultural land suitability analysis for four major crops using satellite imagery and GIS techniques”, has been published in Journal of Computational analysis and Applications, Vol. 33, No. 05 (2024), pp 748-754 **(Q3 journal)** on 9th October 2024.

Conference Papers

International conference publication:

- [1] S. Sanjana, Deepak Devanur Lakshmeesha, Dr. Bhagya. R, “Development and enhancement of CFR estimate in WLAN and testing in Vector Signal Transceiver”, presented in 2018 3rd IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT-2018), held on 18th and 19th May 2018 at Sri Venkateswara college of Engineering, Bengaluru. The paper will be published in IEEE Xplore/digital library and Elsevier’s EI compendex for indexing.
- [2] S. Sanjana, Shavanthi.L, Mrs. Bhagya.R, “Analysis of Energy Aware Sleep Scheduling Routing Protocol (EASSR) In Wireless Sensor Networks”, presented in 2017 International conference on Intelligent computing and control (I2C2), Tamil Nadu, India.
- [3] Ashwini S, AsmaFarheen, Priyanka K G, Divya P R, Dr. Bhagya R, “IoT Based Traffic Management System In Smart Cities”, has been accepted in International Conference on Inventive Research in Computing Applications (ICIRCA 2018) conference, organized by RVS College of Engineering and Technology during July 11-12, 2018 at Coimbatore, Tamil Nadu, India. Accepted papers will be submitted for inclusion into IEEE Xplore.
- [4] Beena Balakrishna, Lekana C L, Radhika Rao, Sanjana Gupta and Bhagya R, “A Comparative study between half-wavelength and stepped impedance resonator based microstrip band-pass filters” IEEE sponsored “International conference on Signal, Image processing, Communication and Automation (ICSIPCA-2017) held on 6th & 7th July 2017 in JSS Academy of Technical Education, Bengaluru. **McGraw-**

Hill International Conference on Signal, Image Processing Communication and Automation (MH-ICSIPCA - 2017)

[5] Chaithra Kumari , Bhagya R “Driver drowsiness detection system using eye landmark and gaze estimation” IEEE sponsored 2017 International conference on Intelligent Computing and Control (I2C2) held on 23rd& 24th June 2017 organized by Karpagam Innovation centre , Karpagam College of Engineering, Coimbatore, India.

[6] ArchanaL, Mohammad Yasin, Bhagya R, “Dali based light and motor control system for Movable spot luminaries” International conference on Recent Trends in Electrical Sciences and Medical Engineering, held on 8th to 10th August 2017 at Manipal Institute of Technology, Manipal University, Manipal, Karnataka.

[7] R Bhagya, Dr. A G Ananth, "Study of Transmission characteristics of higher 4X4 MIMO systems using STBC multiplexing and 16-QAM modulation" International Conference on Advances in Computing, Communications and Informatics (ICACCI'12) at the Student Research Symposium (SRS'12), 3–5 August 2012, RMK Engineering College, Chennai, India.

[8] Anand Murthy L S, R. Bhagya.R, “Design and Implementation of MIMO-OFDM for WLAN standard” International conference on Electronics and communication engineering (ICECE-2013) held at Bangalore on 26th May 2013.

[9] Supriya.P, Bhagya.R, ”Development of turbo decoder for wireless sensor network and its implementation on FPGA”, International Conference on Electrical and Electronics Engineering (ICEEE), 18TH May 2014, pp 115-118, Goa.

[10]Sruthi M, Bhagya.R, ”Performance of an efficient routing approach for In-network aggregation in wireless sensor network”, International Conference on Electrical and Electronics Engineering (ICEEE), 18th, May 2014, pp 115-118, Goa.

[11] Thashrifa, K. K.; Bhagya, R, “**Improved WEMER Protocol for Data Aggregation in Wireless Sensor Networks**”, 3rd International Conference on Emerging Research in Electronics, Computer Science and Technology (ICERECT), PES CollEngn, Mandya, Ashwini S, AsmaFarheen, Priyanka K G, Divya P R , Dr.Bhagya R,” IoT Based Traffic Management System In Smart Cities”935, DOI: 10.1007/978-981-13-5802-9_81, **Published: 2019.{Published in Web of Science}**.

[12] Shivani. S Ukkalimath, Mr. Siddalinga Swamy, Dr. Bhagya. R, “Development of Diameter protocol simulations for IMS-LTE”, presented in 2019 4TH IEEE International Conference on Recent Trends on Electronics, Information & Communication Technology (RTEICT-2019), held on 17th and 18th May 2019 at Sri Venkateswara college of Engineering, Bengaluru. (Scopus Index). The paper will be published in IEEEEXplore/digital library and Elsevier’s EI compendex for indexing.

[13] Sunanda Dixit, Bharathi R &Bhagya R, “Modern automobile Adaptive Cruise Control”, International Conference on Innovative Computing and Communication (ICICC-2020) held on February 21-23,2020 at Shaheed Sukhdev College of Business Studies, University of Delhi. Pp-1109-1121.

{Scopus indexed}.DoI: 10.1007/978-981-15-5113-0_93, Link: https://www-scopus-com-vtuconsortia.new.knimbus.com/inward/record.uri?eid=2-s2.0-85089724214&doi=10.1007%2f978-981-15-5113-0_93&partnerID=40&md5=a407dcde630957e5bb099023c0bc4703.

[14] Bhagyashree A.J., Bhagya R, “Performance Analysis of Channel Estimation Techniques for High-Speed Railway Networks”, International conference on 2nd International Conference on Sustainable Communication Networks and Application (ICSCN 2020), Erode, Tamil Nadu. In: Karuppusamy P., Perikos I., Shi F., Nguyen T.N. (eds) Sustainable Communication Networks and Application. Lecture Notes on Data Engineering and Communications Technologies, Springer, Singapore, 26th Jan. 2021, https://doi.org/10.1007/978-981-15-8677-4_48, Vol. 55, page 593-606.

[15] Tejaswini G. Babajiyavar, Bhagya R, Amritash Kumar, “Implementation and Analysis of Dynamic Spectrum Sharing for Different Radio Access Technologies”, International conference on 2nd International Conference on Sustainable Communication Networks and Application (ICSCN 2020), Erode, Tamil Nadu. In: Karuppusamy P., Perikos I., Shi F., Nguyen T.N. (eds) Sustainable Communication Networks and Application. Lecture Notes on Data Engineering and Communications Technologies, Springer, Singapore, 26th Jan. 2021, <https://doi.org/10.1007>, vol 55, pp 569-583.

[16] Bharathi R, Ashwini N, Bhagya R, Bhavya G, Rameez Pathan, Sambedh Kandel,” FM Radio Wave

based Early Earthquake detection Time”, Proceedings of the 15th INDIACom; INDIACom-2021; IEEE Conference ID: 51348 2021, 8th International Conference on “Computing for Sustainable Global Development”, 17th - 19th March, 2021, Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi (INDIA), <https://doi.org/10.1109/INDIACom51348.2021.00130>. Published 3rd June 2021, **Electronic ISBN:978-93-80544-43-4, Print on Demand(PoD) ISBN:978-1-7281-9546-9.**

[17] R. Bharathi, T. Satish Kumar, G. Mahesh, R. Bhagya,” Development of Diameter Call Simulations Using IPSL Tool for IMS-LTE”, 2nd International Conference on Mobile Computing and Sustainable Informatics (ICMCSI 2021)& will be published in “Springer Lecture Notes on Data Engineering and Communications Technologies (Vol. 68), **Pulchowk Campus, Institute of Engineering, Tribhuvan University, Nepal.**{Springer –Scopus Indexed}. Published in July 28th, 2021.https://doi.org/10.1007/978-981-16-1866-6_46, **PP 647 to 661.**

[18] K S Keerthi, Dr. Bhagya R, “**Unstructured Data Storage Function for 5G Core Network**”, 2nd International conference on IOT based control Networks and Intelligent Systems (ICICNIS 2021), organized by St. Joseph’s College of Engineering and Technology, Kottayam, India, held on 28th & 29th June 2021. The paper is published in **ELSEVIER PUBLICATION IN SSRN DIGITAL LIBRARY.** The paper was recently listed **on SSRN's Top Ten** download list for: CompSciRN: Process for the Collection, Filter & Distribution of Data (Topic). As of 22nd Aug. 21, it was downloaded 17 times. Available at SSRN: <https://ssrn.com/abstract=3883465> or <http://dx.doi.org/10.2139/ssrn.3883465>

[19] Rashmi Reddy K, Dr. Bhagya R,” **Transmission of Emergency Data Packets in Vehicular Ad-Hoc Network**”, 2nd International conference on IOT based control Networks and Intelligent Systems (ICICNIS 2021), organized by St. Joseph’s College of Engineering and Technology, Kottayam, India, held on 28th & 29th June 2021. The paper was published in **ELSEVIER PUBLICATION IN SSRN DIGITAL LIBRARY& was Scopus indexed on 21st July 2021.** K, Available at SSRN: <https://ssrn.com/abstract=3883442> or <http://dx.doi.org/10.2139/ssrn.3883442>

[20] Dr. Bhagya R, Vishnupriya P B & Bharathi R,” Implementation of Lane Change Maneuver System using Neural Network”, International Conference on Edge Computing and Applications (ICECAA 2022), DVD Part Number: CFP22BV8-DVD; ISBN: 978-1-6654-8231-8, Organized by Gnanamani college of technology, Namakkal, Tamil naidu, India, IEEE International conference, held on 13th to 15th October, 2022, pp 1074-1078.

[21] Dr. Bhagya R, Ashwini P R, Bharathi R,” Implementation of Speech Enhancement using Bionic wavelet transform”, 7th International conference on Information & Communication technology for Competitive strategies, organized by Global knowledge research foundation, 9-10th December 2022.

[22] Namratha Sreedhar, Bhagya R, Bharthi R,” Design and Implementation of Tiny ML model using STM32F platform” has been presented in International Conference on Trends in Sustainable Computing and Machine Intelligence (ICTSM 2023), 5-6, October 2023 | Bangkok, Thailand.

[23] Manoj Kumar R., Dr. Bhagya R. and Bharathi R. “Design and implementation of UAV-assisted communication in remote disaster areas using AI for 5G network”, in the proceedings of 2nd Hinweis International conference on Artificial Intelligence and Data Science (AIDE), Oct-27, 2023. Published in Grenze International Journal of Engineering and Technology, Jan Issue, 2024, PP 228-237. Grenze ID: 01.GIJET.10.1.33, © Grenze Scientific Society, 2024.

[24] Saleha Fathima Zaman, Faisal Zaman, Bhagya R,” Role of Blockchain in Spectrum Sharing in B5G Networks Service”, in proceedings of Fifth International Conference on Blockchain Computing and Applications (BCCA), 24-26 Oct. 2023|Kuwait. DOI: 10.1109/BCCA58897.2023.10338909, pp 243 – 249. Faisal Zaman: phd scholar at university of Montreal, Canada.

National conference Publications:

[1] S.Sanjana, Shavanthi L, Bhagya.R, “Analysis of EASSR protocol for Wireless Sensor Networks” National Conference on “ICT & SOCIETY” [WTISD-2017] held on 15th -17th May 2017, RVCE, Bengaluru.

[2] Dileep.S, R.Bhagya,” Design and Analysis of Beam forming coefficients estimation algorithm for

- millimeter waves”, National Conference on “World Telecommunication & Information society day (WTISD)” held on 16th -17th May 2015, RVCE, Bengaluru.
- [3] T. Karthikeya Sharma, Bhagya.R, A.G.Ananth,”Implementation and performance evaluation of Wi-Max networks” TEQIP-II sponsored National conference on WiSE-2013: Wireless, Signal processing and Embedded Systems at BMSCE, Bangalore during 21st to 22nd, 2013.
- [4] Murali Krishna.R, Bhagya.R, ,” Performance Analysis of Blind Matched filtering for 4*4 MIMO systems”, National Conference on “ Telecommunication & Control Engineering”, at PPG institute of technology, Coimbatore during 6th Jan. 2012.
- [5] Chaithra N K, Subha B, Vasundhara Bhat, Bhagya.R," Performance study of 2X2 MIMO system with OFDM using BPSK modulation Technique", National Conference X-Files technology, Society of India at SJCE Mysore held on 16th April 2011.
- [6] Bhagy.R, Dr. A.G.Ananth,"Performance of OFDM Multiplexing transmission using different digital modulation scheme", National Conference on "Communication and Networking", at Don Bosco Institute of Technology, Bangalore during October 2010.
- [7] S. Sanjana, Deepak Devanur Lakshmeesha, Dr. Bhagya. R, “Equaliser training for WLAN CFR Estimates and testing in VST”, National Conference on “Artificial Intelligence and Society” organized by Department of Telecommunication Engineering held on 17th -18th May 2018, RVCE, Bengaluru.
- [8] Kshama S Gaitonda, Soundarya G V, Priyanka K G, Thanya M , Dr. Bhagya R,” IoT Based Traffic Management System In Smart Cities”, Agribot - A Multifunctional Agricultural Robot”, presented in World Telecommunication & Information Society Day (WTISD)”-2019 - National Conference on “Communication Standards and Systems” held on 17th& 18th May 2019, RVCE.

Books/Book Chapters

1. Dr. Nagamani K & Dr. Bhagya R, “**5G & Cognitive radio” in DCADR in Digital convergence in Engineering system with** ISBN: 9781119879701,2024. DOI:10.1002/9781119879923. Chapter 1, Digital Convergence in Antenna Designs (pp.1-37).
2. Namratha Sreedhar, Bhagya R, Bharthi R, “Design and Implementation of Tiny ML model using STM32F platform”, International Conference on Trends in Sustainable Computing and Machine Intelligence (ICTSM 2023), **5-6, October 2023** | Bangkok, Thailand. Published as a Book chapter on 9th March 2024, PP 169-184. **Trends in Sustainable Computing and Machine Intelligence: Proceedings of ICTSM 2023 | SpringerLink, Design and Implementation of Tiny ML Model Using STM32F Platform | SpringerLink.**
LINK:https://drive.google.com/file/d/16CJ_6_8kkEtA7yiSvKCnOg79dM9_IQOe/view?usp=drive_web.
3. Tejaswini G. Babajiyavar, Bhagya R, Amritash Kumar, “Implementation and Analysis of Dynamic Spectrum Sharing for Different Radio Access Technologies”, International conference on 2nd International Conference on Sustainable Communication Networks and Application (ICSCN 2020), Erode, Tamil Nadu. In: Karuppusamy P., Perikos I., Shi F., Nguyen T.N. (eds) Sustainable Communication Networks and Application. Lecture Notes on Data Engineering and Communications Technologies, Springer, Singapore, 26th Jan. 2021, <https://doi.org/10.1007>, vol 55, pp 569-583. This paper is published in Springer, Singapore & published as a Book chapter {Scopus Index}.
4. Bhagyashree A.J., Bhagya R, “ “Performance Analysis of Channel Estimation Techniques for High-Speed Railway Networks”, International conference on 2nd International Conference on Sustainable Communication Networks and Application (ICSCN 2020), Erode, Tamil Nadu. In: Karuppusamy P., Perikos I., Shi F., Nguyen T.N. (eds) Sustainable Communication Networks and Application. Lecture Notes on Data Engineering and Communications Technologies, Springer, Singapore, 26th Jan. 2021,

https://doi.org/10.1007/978-981-15-8677-4_48, Vol. 55, page 593-606. This paper is published in Springer, Singapore & published as a Book chapter{Scopus Index}.

5. R. Bharathi, T. Satish Kumar, G. Mahesh, R. Bhagya,” Development of Diameter Call Simulations Using IPSL Tool for IMS-LTE”,^{2nd} International Conference on Mobile Computing and Sustainable Informatics (ICMCSI 2021)& will be published in “Springer Lecture Notes on Data Engineering and Communications Technologies (Vol. 68), **Pulchowk Campus, Institute of Engineering, Tribhuvan University, Nepal**. {Springer –Scopus Indexed} and published in July 28th, 2021.https://doi.org/10.1007/978-981-16-1866-6_46, PP 647 to 661. This paper is published in Springer, Singapore & published as a Book chapter.
6. Ashwini S, Asma Farheen, Priyanka K G, Divya P R , Dr. Bhagya R,” IoT Based Traffic Management System In Smart Cities”, has been accepted in International Conference on Inventive Research in Computing Applications (ICIRCA 2018) conference, organized by RVS College of Engineering and Technology during July 11-12, 2018 at Coimbatore, Tamil Nadu, India. Published in IEEE Xplore & published as Book chapter.

Article Publication

1. An article “Augmented Reality and Virtual Reality in the field of Telecommunications” was published in SANSUNG PRISM on 25th Aug. 2022.
2. An article “Massive MIMO for 5G Communication”, was published in SANSUNG PRISM on 25th Aug. 2022.

Patents [Filed / Published / Granted]

1. **UK Patent filed on "Battery Thermal Management Solutions for Electric Vehicles"** along with EEE dept.. Design no.: 6384687 under International Design Classification, Version: 14-2023, Class: 13 Equipment for Production, Distribution or Transformation of Electricity, class: 03 Equipment for Distribution or Control of Electric power; Grant date: 22 August 2024.
Dr. S G Srivani, Dr. Vidya Pasupathy, Dr. Mahesh Ramakrishna, Dr. Nandeesh Kumar, Dr. Adinath Jain, Dr. Bhagya Ramachandra, Dr. Sunanda Chennaiah.
2. Patent filed on **“Multiband Antenna Tuning Device for 5G Networks”**. **Application No.: 450853-001, Cbr No.: 204996 on 8/3/2025**. Design Accepted and Published, Journal No is 21/2025 and Journal Date is 23/05/2025.
Dr. Parimala P, Mrs. Nisha S L, Dr. Ramya H R, Dr. Shanthi P, Mrs. Pushpa B R, Dr. Bhagya R

Projects carried out Under IEEE CTSoc Completed projects

- (i) Medical data anonymization for machine learning infrastructure given by Mr. Kousik Sankar R, Svasthiya Technologies Private Limited, a Healthcare startup company. Mentor: Dr. Bhagya R; Student: Swarna A N, VII sem., AI/ML dept., Project duration: 03 months - October to December 2024
- (ii) ML model to optimize person detection using Grid Eye sensor given by Mr. Satish Patel, Dyulabs Private Limited, RF-based automation solutions. Mentor: Dr. Bhagya R & Dr. Roja Reddy; Students: Suhas Papanashi (ETE dept.), Nishant V H (CSE dept), Manojith Bhat V (ISE dept.); Project duration: 03 months - October to December 2024.
- (iii) Implementing an Over-The-Air (OTA) update mechanism for an STM32 Microcontroller-based system given by Mr. Satish Patel, Dyulabs Private Limited, RF-based automation solutions. Mentor: Dr. Bhagya R; Students: Narasimha Murthy AJ, Namratha R, Rohith D – V sem., ETE dept., Project duration: 03 months – October to December 2024.

Ongoing project

- (i) Water Tank Level Measurement Controller (Battery and Solar Power) given by Mr. Satish Patel, Dyulabs Private Limited, RF-based automation solutions. Mentor: Dr. Bhagya R; Students: Aahana Nischal, S Pranesh & Adithya Sakthimani, III sem., ETE dept., Project duration: 03 months – September to December 2024.

R & D Grants & Consultancy Projects - NIL

Ongoing & Completed Research Projects - NIL

Ongoing & Completed Consultancy Projects

Ongoing Consultancy project

- (i) **Shadow generation in Gaussian splatted scene, Worklet no: 25IX04RV from Samsung Prism.**
Faculty mentors: Dr. Shanta Rangaswamy, Dr. Bhagya R
Mentors _ Samsung: Gyanendu Shekhar / Rajat Kumar
Students: Suhas Papanashi, Nishant V H, Muhammad Umar Yaksambi, Sharanya Madhyastha. From May 2025 to Oct. 2025.

Professional Memberships

- (i) IEEE Senior member – membership ID: 95663275
- (ii) ISTE Life Member - LM 120176
- (iii) IETE Fellow Life Member - F-502679
- (iv) IETE Student Co-Ordinator, RVCE
- (v) Executive Committee Member (Conferences & Scientific Events) of IFERP (Institute For Engineering Research and Publication), Karnataka section.
- (vi) Academic Liaison Chair of IEEE CTSoc.

Awards & Recognitions

- (i) First place as the outstanding contribution as the Project Supervisor, for the project titled, “Smart Vehicular System” in “Telecombat” – A National level project contest 2022 (Virtual mode) organized by the Department of Electronics & Telecommunication Engineering, BMSCE, Bangalore in association with the BMSCE IEEE Student Branch on 16th July 2022. A cash prize of Rs. 10,000/- was received.
- (ii) Received the Appreciation certificate for guiding the project titled “ENERGY SAVING IN D2D 6G” in Technovation 2023, a National level project exhibition organized by IEEE CMRIT SB on 28th June 2023
- (iii) Received the Award of Appreciation as Faculty of the year 2024 by RVCE, Dept. of EEE in association with Reach the need foundation headed by Nikitha Swamy, president, Reach the need & team, for Engineering for a sustainable future on 17.9.2024.

Achievements:

- (i) Felicitated by ISTE - RVCE chapter for achieving Ph.D degree in 2017.
- (ii) Felicitated by RSST, for achieving Ph.D degree on 26th Jan. 2018.

Student Supervision

- **Ph.D. Candidates:**
- Doctoral committee member for Ph.D Research Scholar in various institutions - BMSCE, SJCE, MSRIT, Saphthagiri- NPS University, RVCE, Jain University, HKBK College of Engineering.
- **M.Tech/M.Sc. Students:** [30]
- **Undergraduate Research Mentees:** [40]

Professional Roles

- **Editorial Board:**
 - (i) Member of 'Editorial Board' of 'Lattice Science Publication' and it's journal(s) for year 2020-21, 2021-22.
 - (ii) Member of 'Reviewer' of 'Blue Eyes Intelligence Engineering & Sciences Publication' and it's journal (s) for year 2020-21, 2021-22.
 - (iii) Editorial/Reviewer board member of IJARTMS. Membership id: **VXFIX8-CE000001** dated **13/8/2021**.
 - (iv) Editorial/Reviewer board member of IJARTMS. Membership id: **TNFKZ8-CE000026** dated **13/8/2021**.
 - (v) Editorial Board member of MAT Journals from 7th June 2023.
 - (vi) Editorial Board member of the Journal of International Journal of Electronics and Communications (IJEC) (ISSN:2692-5192) from 12, September 2023 to 11, September 2026.
- **Chair/Committee Member:** [Conference Name, e.g., *IEEE International Conference on Robotics*]
 - Chaired a session during paper presentation in the National Conference on ICT and Society on the occasion of World Telecommunication and Information society Day during 15th-17th May 2017, organized by Department of Telecommunication Engineering, RVCE.
 - Chaired a session during paper presentation in the National Conference on ICT and Society on the occasion of World Telecommunication and Information society Day during 16th-17th May 2018, organized by Department of Telecommunication Engineering, RVCE.
 - Session chair for IETE (Institution of Electronics & Telecom Engineers) Bangalore Centre in collaboration with Bharat Electronics (BEL) and C-DoT is organizing an IETE International Conference India (IICI-23) on "AI & ML DRIVING 5G - ADVANCED & 6G – Making 6G & AI in India for the World" at BEL Academy of Excellence (NALANDA), Bengaluru, INDIA from 3rd to 5th May 2023.
 - Session Chair for the "5th International Conference on Recent Advancements in Engineering and Technology (ICRAET-2023)" -Virtual Conference on 19th & 20th May 2023 Organized Institute For Engineering Research (IFERP) and Publication (IFERP).
 - Session chair for the "9th international conference on Electronics, Computing and Communication technologies, IEEE CONNECT (July 14th -16th 2023) organized by IEEE Bangalore section at MSRIT, Bangalore on Aug. 2nd, 2023.

- Track chair for the “9th international conference on Electronics, Computing and Communication technologies, IEEE CONNECT (July 14th -16th 2023) organized by IEEE Bangalore section at MSRIT, Bangalore on Aug. 2nd, 2023.
 - Session chair for International conference on “Distributed computing and Optimization Techniques (ICDCOT-2024)” on 15th & 16th March, 2024, organized by SJBIT, Bengaluru in coordination with IEEE Bangalore section.
 - Session chair for 5th International Conference on Circuits, Control, Communication and Computing I4C-2024 on 5th October 2024 at MSRIT, Bengaluru in coordination with IEEE Bangalore section.
 - Jury member and Guest of Honor for “AVINYA-2024”, A National level Intercollegiate 24 Hrs Hackathon which was scheduled on Saturday, 30th November 2024, SJC Institute of Technology, Chickballapur, Department of Electronics and Communication Engineering and IEEE Student Branch-SJCIT.
 - Session chair for “3rd International Conference on Knowledge Engineering and Communications Systems (ICKECS-2025 Conference)”, held at SJC Institute of Technology, Chickballapur in Association with IEEE Bangalore Section on April 28-29 2025. On 29th April 2025 from 2 to 4pm.
 - Session Chair for the one-day symposium on 'Artificial Intelligence-Powered Innovation in Telecommunication', organized by the Department of Electronics and Telecommunication Engineering in association with National Design and Research Forum Bangalore (NDRF), IEEE SPS Students Chapter, IEEE Sensors Council Bangalore Chapter and IETE on 16th, May 2025, on account of celebration of World Telecommunication and Information Society Day (WTISD 2025).
 - Program Chair committee member for International Conference on Electronics, Computing and Communication Technologies, CONECCT 2020 organized by IEEE Bangalore Section, India during JULY 2-4,2020.
 - Program Chaire for 5th International Conference on Computational Systems and Information Technology for Sustainable Solution, Organized by RV College of Engineering®, Bengaluru, Financially Co-Sponsored by IEEE Bangalore Section, Technically Co-Sponsored by Florida International University, 16th to 18th December 2021.
 - Track Chair for the “9th international conference on Electronics, Computing and Communication technologies, IEEE CONNECT (July 14th -16th 2023) organized by IEEE Bangalore section at MSRIT, Bangalore on July 26th 2023.
- Track-Q Network of Smart Appliances as CPS.
- Worked as a National Advisory Committee for International Conference on Cognitive Robotics and Intelligent Systems (ICC-ROBINS 2024) during 17-19 April 2024 in KPR Institute of Engineering and Technology, Coimbatore, India.

- **Industry Advisor:** [Company/Startup Name] - **NIL**

Teaching

Core Courses: Academic year 2024-25

Odd Semester

- (i) [22EC13] [Basic Electronics]
- (ii) [21ET72] [Communication Engineering III]

Even Semester

- (i)[MET325DJ] [VEHICULAR COMMUNICATION ECOSYSTEM – II sem. M.Tech
- (ii)[HS248XT] [Universal Human Values]

Advanced/Lab Courses:

- (i) Communication Engineering III lab
- (ii) Digital Communication & Networks lab

Professional Roles

Responsibilities

1. **Academic:** [Placement Coordinator, Higher studies Coordinator {for both UG & PG}], BoE Coordinator, Dept. level NAAC coordinator for 2024. Filled in the details required for all criteria's, required at the department level, NBA coordinator 2011-2023, Board of Syllabus (BoS) coordinator from 2018 till 2021].
- **Administrative:** [Sports Coordinator, Lab Incharge: Wireless Communication, Communication Engineering III.]

External Connect

1. BoE member in ETE dept, BMSCE, Bull temple road, Bangalore in 2022.
2. BoS member at Sapthagiri- NPS University in ECE dept. from 2025 to 2027.